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FLY CONTROL IN NEBRASKA FEEDLOTS

By Robert E. Roselle
Agricultural Extension Entomologist

Insect control recommendations in this publication are based on U.S.D.A. recommendations, research results of state universities, and label registrations. Farmers and ranchers must be extremely careful in selection of insecticides for use in feedlots so that illegal residues do not occur. Labels must be studied carefully before mixing chemicals to be certain that the material is labeled for the use intended. The recommended amounts should always be observed.

To simplify recommendations, trade names have been used in some instances. This is not to be interpreted as an endorsement of a particular brand, nor is it intended to discriminate against similar products which are not mentioned by name.

Recommendations in this publication are subject to change or withdrawal at any time.

CAUTIONS: All insecticides are poisonous and must be used with caution. This is especially true of concentrates before dilution. All precautions on the labels should be studied carefully and followed.
FLY CONTROL IN FEEDLOTS

Several kinds of flies infest feedlots. The two most important species are stable flies and house flies. Face flies and horn flies may occur in feedlots at times, but are more important in pastures.

Stable Flies: Stable flies are blood sucking and feed mainly on the legs and lower portion of the bodies of cattle. The bite is painful and very irritating. After feeding, stable flies leave animals to rest on fences, barn walls and feed bunks where they digest their blood meal, returning for additional meals several times a day.

Stable flies breed in decaying organic matter. The common breeding places in feedlots are strawy manure, spilled feed, edges of hay piles, bedding, and around spilled silage.

House Flies: House flies do not suck blood. They breed in the same general areas as stable flies. When present in large numbers they are annoying to cattle.

Face Flies: Face flies breed only in fresh cattle droppings, therefore are more common in pasture or on range. At times face flies feed on tears, saliva, and secretions from the nose and open wounds. Irritation resulting from face flies around eyes is at times severe. They are suspected of carrying pink eye. They do not suck blood.

Horn Flies: Horn flies, like face flies, breed only in fresh manure. The eggs are laid within a few minutes after manure is dropped. The flies are more important in pastures, but will infest feedlot cattle near breeding areas. They usually congregate on the shoulders and backs of cattle where they suck blood. Horn flies are about one-half the size of stable or house flies, and remain on the animals throughout the day.

SANITATION

To reduce numbers of stable and house flies, remove the breeding areas. Remove decaying organic matter, spilled feed, and spoiled hay once each week if possible. Keep edges of hay stacks dry, remove spilled feed from under bunks once each week. Scatter this organic material on fields, or other areas where it will dry.

MIST BLOWERS

Mist blowers deliver a fine spray mist in a strong blast of air. Chemicals in the stream of air kill flies on contact. The following may be used:

DICHLOROVOS (Vapona, DDVP): Mix 6.25 ounces of 44.5% Vapona to 5 gallons of water. Apply at the rate of 5 gallons diluted spray per acre.

NALED (Dibrom): Mix 3 ounces of 60% Dibrom to 5 gallons water. Apply at the rate of 5 gallons diluted spray per acre.
Vapona and Dibrom do not provide residual control. When mist blowers are used, feedlots will need to be misted one or two times each week to maintain fly control.

Mists can be blown over cattle, however avoid direct application to feed and water.

**HYDRAULIC SPRAYERS**

Materials suggested for mist blower application can be applied with hydraulic sprayers at the same rates. Adjust nozzle to deliver a fine mist and allow air currents to move the mists. In this case the wind should not be more than 5 mph. It is essential that the operator remain out of the mist.

**AIRCRAFT APPLICATIONS**

Dibrom and Vapona at the same rates suggested for mist blowing can be applied by aircraft. The reaction of cattle to low flying aircraft must be taken into consideration. It may be desirable to condition some lots of cattle to the sound of low flying planes.

**FOGGING DEVICES**

Fog equipment uses heat to generate fog from a combination of insecticide and oil. If thermal fog devices are used in feedlots, it is very important that wind, wind and temperature conditions are just right. It is necessary for the fog-cloud to move slowly through the feedlot on the ground. To accomplish this, wind should be 5 mph or less during the evening or early morning. Fogging during the day is usually ineffective as the wind will disperse the fog too rapidly, and convection currents caused by heated ground will cause fog to rise. The following materials are suggested for fogging:

**NALED (Dibrom):** Mix one gallon of 85% Dibrom to 99 gallons No. 2 fuel or diesel oil or 13 ounces to 10 gallons oil. Apply at the rate of 40 gallons diluted mixture per hour output at an average vehicle speed of 5 miles per hour, apply swath 300 to 400 feet wide. If nozzle clogging results, add 2 to 3 quarts of manufacturers additive per 100 gallons of mixture.

**SPRAYS ON CATTLE**

Sprays applied directly to cattle for control of stable flies usually need to be repeated often. Do not expect more than 3 or 4 days control on animals. The following materials can be used:
Ciodrin: Mix 2 pints of 46.9% Ciodrin to 24 gallons water.

Methoxychlor: Mix 2 quarts of 25% methoxychlor EC, or 2 pounds 50% WP to 25 gallons water.

Spray the legs, flanks and underlines thoroughly. There are no waiting periods for these materials applied on beef cattle.

Residual Sprays for Fences and Buildings

Apply wetting spray to inside and outside walls of buildings, fences, and trees or shrubs surrounding feedlots to kill flies resting there. Apply to run-off, but do not allow puddles to form.

In exposed areas, the length of residual effectiveness is short. Weekly applications on outside surfaces may be necessary until frost. Residual sprays should be used in addition to misting, fogging, or aerial application, for best fly control.

Residual sprays are never to be used on animals. Do not spray water or feed supplies. The following materials can be used:

Fenthion (Baytex): Mix 4 ounces of 46% EC to each gallon of water.

Dimethoate (Cygon): Mix 2 quarts of 43.5% EC to each 25 gallons water.

DDT: Mix 4 gallons 25% EC in 25 gallons water. House flies in most areas are resistant to DDT. Stable fly reduction is still possible.

Methoxychlor: Mix 4 gallons 25% EC in 25 gallons water. House flies in most areas are resistant to methoxychlor.

Backrubbers

Backrubbers are effective for horn fly control in pastures. They may assist in fly control in feedlots, but alone will not provide satisfactory control of stable flies and house flies. The following mixtures can be used in backrubbers:

<table>
<thead>
<tr>
<th>Material</th>
<th>Dilution</th>
<th>Restrictions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Co-Ral 11.6% EC</td>
<td>1 gallon to 13 gallons oil</td>
<td>No waiting period</td>
</tr>
<tr>
<td>Delnav 20% EC</td>
<td>1 gallon to 20 gallons oil</td>
<td>No waiting period</td>
</tr>
<tr>
<td>Korlan 24% EC</td>
<td>1 quart to 7 gallons oil</td>
<td>14 days</td>
</tr>
<tr>
<td>Malathion 57% EC</td>
<td>1 pint to 7 gallons oil</td>
<td>No waiting period</td>
</tr>
<tr>
<td>Ciodrin 25% EC</td>
<td>1 quart in 7 gallons oil</td>
<td>No waiting period</td>
</tr>
<tr>
<td>Toxaphene 60% EC</td>
<td>1 quart in 4 gallons oil</td>
<td>28 days</td>
</tr>
<tr>
<td>Methoxychlor 25% EC</td>
<td>1 gallon in 4 gallons oil</td>
<td>No waiting period</td>
</tr>
</tbody>
</table>

EC = Emulsifiable concentrate. WP = Wettable powder.

Mix chemicals with No. 2 diesel fuel or furnace oil, never in used crankcase oil. Backrubbers should be recharged when horn flies increase on animals. Their use will also prevent louse build-up and aid in winter-time louse control.